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ABSTRACT

Experts' opinion is proposed as a valuable evaluation tool. Advantages of this method include the relative cost effectiveness when compared with other data collection methods. It is a time-saving method important in formative evaluation when a decision must be made concerning implementation of a course of action. When experts are carefully selected, their opinions add to the credibility of the evaluation. Experts' opinion may be used for the assessment of project goals and strategies which need to be evaluated at an early stage of the project. A systematic process for using experts' opinion consists of five major stages: (1) object identification; (2) sampling of experts; (3) presenting questions to experts; (4) obtaining experts' responses; and (5) synthesizing opinions. A large scale evaluation project, the Tel Aviv Evaluation (TAE) Project utilized this process. The TAE was developed to evaluate the projects included in the Tel Aviv Reinforcement and Enrichment Program to provide decision makers with relevant informtion to improve the Tel Aviv, Israel public schools. (DWH)

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EXPERTS' OPINION: A POWERFUL EVALUATION TOOL

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INTRODUCTION

As part of the attempts to extend the scope of evaluation in recent years (Nevo, 1983), it has been suggested that evaluation practice not limit itself to the assessment of the results or outcomes of an evaluation object. Stake (1967) made a distinction between descriptive information and judgemental information in evaluation. He suggested that descriptive information focus on intents and on observations regarding antecedents (prior conditions that may affect outcomes), transactions (the process of implementation) and outcomes of various types. Judgemental information in Stake's approach is comprised of standards and judgements regarding the same antecedents, transactions and outcomes. Stufflebeam's CIPP Evaluation Model (Stufflebeam, et al., 1971; Stufflebeam, 1974) suggests that evaluation focus on four kinds of information regarding each evaluation object: (a) its goals, (b) its design, (c) its process of implementation, and (d) its outcomes. Guba and Lincoln (1981) suggested that the evaluator collect five kinds of information: (a) descriptive information regarding the evaluation object and its setting, (b) information responsive to concerns of relevant audiences, (c) information about relevant issues, (d) information on existing values, and (e) information on standards relevant to the worth and merit of the evaluated object.

In addition to the general notion that program evaluation should broaden its scope regarding the kinds of information to be collected on each evaluated program, it has also been suggested that evaluation extend its perspective regarding the stage of the program in which evaluation should be introduced. Traditionally, the major use of evaluation has been in its summative - retroactive mode to serve selection and accountability. However, advocates of evaluation tended to point out its potential contribution to planning and management if used in a more formative - proactive mode. Scriven's distinction between Formative Evaluation and Summative Evaluation (Scriven, 1967), and Stufflebeam's distinction between proactive

evaluation intended to serve decision making, and retroactive evaluation to serve accountability (Stufflebeam, 1972) inspired evaluators to introduce evaluation into projects at their early stages of conception and structuring. Used at the early stages of planning and implementation, evaluation could help clarify goals and challenge some "taken for granted" assumptions underlying the project. It could also provide information to choose among alternative strategies of action or enable modification and improvement of current activities.

If an evaluation of a project has to provide a wide range of information, part of which is mainly needed at the early stages of developing the project, then a fast and flexible evaluation tool is required. And that's where experts' opinion comes in.

ADVANTAGES AND SHORTCOMINGS

Experts' opinion is probably one of the oldest evaluation tools in education as well as other social domains. Policy-makers often seek the advice of experts prior to making policy decisions. Research proposals are reviewed by panels of experts prior to funding decisions. College and university faculty members are assessed by colleagues in their area of expertise when considered for promotion or tenure. Manuscripts submitted for publication in refereed journals are reviewed by expert readers. With the professionalization of program evaluation the use of experts' opinion has also been recommended by many authors as a legitimate tool in systematic evaluation (Stake, 1967; Reinhard, 1972; Lewy, 1977; Eisener, 1979). Reinhard (1972) structured the use of "Advocate Teams" into a systematic procedure for "Input Evaluation" according to Stufflebeams' CIPP Evaluation Model. Eisner has used experts' opinion as a basis for the development of his Connoisseurship Evaluation Model (Eisener, 1979).

The use of experts' opinion as an evaluation tool seems to have four major advantages. First, it is an inexpensive evaluation tool compared to other

procedures of data collection such as administration of tests or questionnaires, conducting observations or interviewing project participants and other associated persons. The cost of obtaining experts' opinion regarding a specific project is usually comprised of the cost of several "consulting days" plus the cost of synthesizing the opinions if more than one expert has been used. Second, experts' opinion is a quick evaluation tool. In many cases timeliness is a very important consideration in conducting evaluation. This is especially so in the case of proactive evaluation when a decision has to be made whether to implement a certain course of action. Most evaluation clients are eager to receive fast feed-back and in many cases it seems impossible to postpone a decision for several months or even years until a thorough evaluation has been completed. In such cases using experts' opinion might be the only feasible alternative to not doing an evaluation at all. Third, if experts are chosen carefully, their opinions might be highly appreciated by various evaluation audiences, thus adding to the credibility of the entire evaluation. Some evaluation clients trust experts' opinions much more than empirical evidence obtained from a controlled experiment and analysed by means of a sophisticated statistical procedure. For a novice evaluator opinions of some prestigious experts on the project he has been evaluating can add a lot of credibility to his evaluation report. The fourth advantage of experts' opinion is that it can be used for the evaluation of a new project without it having to be implemented. This feature makes experts' opinion an appropriate tool for the assessment of project goals and strategies which should be evaluated at an early stage to avoid the waste of resources used for implementing untested strategies attempting to achieve unwarranted goals. Thus, experts' opinion can be appropriate for Context Evaluation and Input Evaluation in the CIPP Model (Stufflebeam, et al., 1971), or for the evaluation of intended antecedents, intended transactions and intended outcomes in Stake's Countenance Model (Stake, 1967).

And yet experts' opinions have shortcomings as well as advantages. They have been known for their subjectivity and inconclusiveness. The first shortcoming of this evaluation tool is related to the subjectivity of the opinions expressed by various experts affecting the reliability of the information provided. Another shortcoming is related to the fact that experts tend sometimes to be very careful in their responses thus hesitating to provide conclusive answers to the questions presented to them. This might not only limit the utility of experts' opinions, but also make the synthesis of their opinions a very difficult task. A third shortcoming stems from the fact that at an early stage in the life of a project (when experts' opinion is mostly used) it seems difficult to obtain a clear description of the evaluated project, including explicit statements of its goals and strategies. The lack of a valid characterization of the project might make it difficult to "present" the project to experts and ask them to review it. The last shortcoming is related to a possible shortage of experts in a certain area of expertise, creating difficulties for the evaluator in securing the cooperation of appropriate experts for his evaluation.

Those shortcomings of experts' opinion can be minimized when used in a structured and systematic way, as will be shown in the remainder of this article.

A SYSTEMATIC PROCESS FOR USING EXPERTS' OPINION

The underlying assumption of this paper is that using experts' opinion in a systematic way could enable us to benefit from the advantages of this tool while minimizing its limitations. In developing a systematic way for using experts' opinion five major issues have to be considered. They are: (a) object identification, (b) sampling of experts, (c) presenting questions to experts, (d) obtaining experts' responses, and (e) synthesizing experts' opinions. These issues could also represent

the major stages in a systematic process of using experts' opinion. We shall describe these stages and present a large scale evaluation project in which these stages have been developed and applied.

(1) Object Identification

The object of the evaluation (program, project, material, etc.) should be sufficiently described so as to be clearly identified when presented to experts. Such a description should include the goal(s) of the object, its target population, its strategy, its administrative structure, its plan of action, its personnel and the resources at its disposition. If such a description is available in one of the documents of the evaluated object (e.g. the funding proposal), it can be used to present the object to the experts. If an appropriate project description is not available, the evaluator should develop one. He should prepare a written description of the project on the basis of his interaction with project personnel and review of relevant documents (if available). He should also ask the project personnel to check the factual accuracy of his description and make sure that it has been approved by the project director prior to its presentation to the experts.

(2) Sampling of Experts

A careful choice of experts is a major factor in establishing the credibility of their opinions. Although random sampling is not feasible, in most cases an unbiased sample of experts can be obtained by using the following criteria: First, experts who are or have been associated with the evaluated project should not be included. Experts who are known for their extreme support or opposition to the project should also be excluded. Second, the sample should represent a wide

range of expertise relevant to the nature of the evaluated project. For example, the evaluation of a reading comprehension individualized instruction project might request experts in reading, in individualized instruction and in curriculum development. Third, the sample should include not only scholars from the academe, but also practitioners who practice their expertise within the educational system. The credibility of academics and practitioners varies among different evaluation clients. Finally, if more than one expert fits each of the categories in the second and third criteria and is willing to cooperate, random sampling should be used within each category. The size of the sample should be determined according to the size of the project and the resources available for the evaluation. Usually three to ten experts are used for typical educational projects.

(3) Presenting Questions to the Experts

When the description of the project is presented to experts it should be accompanied by a set of specific questions that they have to address. The use of one general non-specific question (.e.g. "What do you think about this project?") is strongly discouraged. The specific questions to be asked should be developed on the basis of the nature of the project and the information needs of the evaluation clients. The questions will usually be related to the appropriateness of the project goals, the worth of its strategies and plans of action, and the prospect of the project to affect its target population. The same set of questions should be used for all experts. However, specific sub-questions could be added to those presented to some or all of the experts according to their area of expertise.

(4) Obtaining Experts' Responses

Experts have to be approached in advance to make sure they give their consent to provide opinions on the project within an agreed-upon period of time. In many cases, it is easier to convince experts to render their services to the project if they commit themselves to the project (e.g. on the phone) before materials have been sent out to them. With those experts who fail to deliver their written responses on time an appointment should be made to obtain their opinions orally. These responses have to be recorded by a member of the evaluation team. Later on the experts should be asked to check the factual accuracy of their recorded responses. This procedure is intended to increase the response rate in the original sample of experts, and minimize the sampling bias that might be created by the drop-out of experts who are "busier" (and also better?) than others. Experts from whom it seems impossible to obtain responses even orally have to be dropped from the sample. They should be replaced by others using the same sampling procedure described in stage 2.

(5) Synthesizing Experts' Opinions

For most evaluation clients it might be difficult to benefit from a set of opinions provided by a group of experts unless they have been synthesized into one composite summary. It is the responsibility of the project evaluator to conduct such a synthesis for the benefit of his client. Although this is a very tricky task requiring skills which are a combination of craftsmanship and artistry, some guidelines can be suggested for the evaluator. First, the organizing framework for the synthesis should be the set of common evaluation questions that have been presented to the experts. The opinions should be analyzed and synthesized by evaluation questions

rather than by the overall stance of the various experts (e.g. positive, negative, or neutral), or their area of expertise. After each question has been addressed in the synthesis, an overall conclusion regarding the entire project may also be presented. Second, the evaluator should write the summary in his/her own words, using quotations to support his conclusions and providing the complete records of experts' opinions in an appendix. This would allow critical audiences to question the validity of the synthesis, or to obtain additional information according to their specific interests. Third, if feasible, the synthesis should be developed independently by two members of the evaluation team. The differences - if any - between the two syntheses should later on be discussed in an attempt to reach a consensus on a single synthesis that would be presented to the evaluation clients. Fourth, the evaluator should remember that an inconclusive answer is also an answer for a question where a conclusive answer is not warranted. Such an answer might also have practical implications and should therefore be reported without hesitance. An inconclusive answer might suggest an experimental implementation of the project followed by evaluation, while a conclusive negative answer might suggest project termination, and a conclusive positive answer might be followed by full implementation of the project without any further evaluation. Finally, the validity of the synthesis of experts' opinions should be established by confronting its conclusions with those suggested by other sources of information such as previous evaluations of similar projects or relevant research studies. Thus, the answers provided by the experts to at least part of the questions, should be confronted with answers to the same questions that would be inferred from a review of relevant research literature or from a systematic

meta-analysis of available research findings. Such a confrontation could add to the validity of the experts' opinions as well as to the validity of the synthesis of those opinions.

This process has been used in a large-scale evaluation project which we shall describe next.

USING EXPERTS' OPINION FOR THE TEL AVIV EVALUATION PROJECT: AN EXPERIENCE

The Tel Aviv Evaluation Project (TAE) has been developed to evaluate the projects included in the Tel Aviv Reinforcement and Enrichment Program (REP) so that decision makers in the local educational system could be provided with relevant information in their attempts to improve the schools of Tel Aviv. In the 1983/84 school year, the program included 12 projects, three of which were at the kindergarten level, five at the elementary school level and four at the high school level.

Three major evaluation questions were addressed by the TAE project: (a) are the REP projects based on acceptable educational approaches providing a reasonable chance to affect the projects' target population? (b) are the projects being implemented as planned and efficiently? and (c) do projects which are directly intended to change students' behaviour have an impact on students' achievements, their attitudes towards school and their social acceptance in their classes? These questions were asked both in relation to the whole program as well as in relation to each single project included in the program. The two major tools used to address the first evaluation question were systematic reviews of relevant research literature and experts' opinion. We shall describe here the way experts' opinion was used in the TAE project to address the first evaluation question in relation to the whole program. This experience served as a basis for the development of a systematic process of using experts' opinion as presented in this paper, as well as a case study of its implementation.

Applying the process of using experts' opinion in the TAE project followed the stages presented in the previous section.

In the first stage (object identification) we decided to use the annual REP plan as a description of the project. This document has been prepared by the local education department of Tel Aviv, as a funding proposal for the city council. The proposal was an extensive document (about 60 pages) which included an introduction presenting the general goals of the program. Most of it was devoted to a detailed presentation of the various reinforcement and enrichment activities planned for the schools of Tel Aviv, and the resources needed for their implementation. This was the version of the proposal that has been approved by the city council with some minor changes in the budget. Although most of the proposal had the nature of a budgetary document and its introduction was not specific enough about the rationale of the project, we decided to use it as an "identification document" of the project mainly for its authenticity. We thought that in spite of its flaws, it is an authentic representation of the nature of the object of our evaluation. Therefore, this was the document that had been sent to the experts.

In the second stage we sampled our experts. We had consulted our clients and other stakeholders of the project and decided that we need to have in our sample of experts representatives in the areas of enrichment and reinforcement for disadvantaged students at kindergarten, elementary school and secondary school level. It was also apparent that only some of the experts should be from the academia and that the practitioners should represent various administrative levels in the educational system (teachers, principals, supervisers, and high level administrators). In addition we had two constraints: persons associated with the project had to be excluded, and the total number of experts in that sample had to be limited to a maximum of N = 10. Obviously, we had to make some combinations in the desired characteristics of the experts to function within the limits

of those constraints. We ended up with a sample of nine experts who represented a wide range of expertise and other requested characteristics (even sex...) as can be seen in Figure 1.

Figure 1 about here

At the third stage we developed the questions for the experts. These questions, presented in Figure 2 were developed on the basis of interface with the clients of the evaluation and our preliminary analysis of the project proposal. The questions represent the major concerns of the clients, as well as our understanding of the evaluation problem at that stage of the evaluation.

Figure 2 about here

The questions presented in Figure 2 were included in the cover letter that was attached to the project proposal that was then setnt to the experts.

The experts were contacted by phone and their consent to respond to our request was obtained prior to the mailing of the letter and the proposal. They were asked to answer the questions in written form, within two weeks. However, only four of them responded in writing. The others who did not respond within a period of four weeks were interviewed, and their opinions recorded by the project staff. Those recorded responses were sent back to them to be checked for their accuracy. A total period of eight weeks was needed to obtain all the responses from the experts in written or oral form.

The experts' opinions were synthesized according to the five questions that they were asked to respond to. The synthesis was submitted to the clients less than three months after the evaluation project had begun. Although it is beyond the scope of this paper to present the content of the responses obtained from the experts, it seems to be important to point out that the experts' opinions were perceived by the evaluation clients as very relevant information. The evaluation clients also seemed to appreciate the fact that such information has been provided less than three months after the beginning of the evaluation. Such speed proved a surprising experience for our evaluation clients, and served as a good start for the whole evaluation project.

We hope that the experience reported in this paper proves valuable to evaluators interested in broadening the scope of their evaluations and using experts' opinion in the light of its advantages and shortcomings.

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Figure 1: The Sample of Experts

1.	Mr. M.A.	High school principal
2.	Mr. S.B.E.	Director of the department for disadvantaged students in the Ministry of Education
3.	Mr. A.G.	Regional supervisor in the Ministry of Education
4.	Dr. R.M.	Regional supervisor on kindergartens in the Ministry of Education
5.	Dr. D.F.	University professor specializing in enrichment programs and reading
6.	Dr. Y. K.	Educational sociologist specializing in culturally disadvantaged students
7.	Dr. A.S.	Faculty member at a school of education specializing in the culturally disadvantated
8.	Dr. O.S.	University president, ex dean of a school of education, and director of research in the Ministry of Education
9.	Ms. D.S.	Elementary school teacher specializing in individualized instruction.

Figure 2: Questions Presented to Experts

1. Does the proposed program comply in your opinion with acceptable educational approaches?

2. Does REP include any activities that you would recommend not to implement because of a potential harm to students or the educational system?

3. What do you think is the probability of the various projects included in REP to achieve their goals? Name those with high probabilities, and those with low ones.

4. To what extent does the enclosed document provide adequate guidance to those who have to implement the program?

5. What would you suggest to change or improve in the various projects to increase their chances to succeed?